## **RECEIVED**

APR 3 0 2001

1644

**TECH CENTER 1600/2900** 

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/147,443D

DATE: 04/17/2001 TIME: 13:37:07

Input Set : A:\09147443.app

Output Set: N:\CRF3\04172001\I147443D.raw

ENTERED

```
3 <110> APPLICANT: Morell, Andreas
        Imboden, Martin
        Stadler, Beda
5
        Miescher, Sylvia
6
        Vogel, Monique
7
        Amstutz, Hanspeter
10 <120> TITLE OF INVENTION: POLYPEPTIDES CAPABLE OF FORMING ANTIGEN BINDING
         STRUCTURES WITH SPECIFICITY FOR THE RHESUS D ANTIGENS,
11
         THE DNA ENCODING THEM AND THE PROCESS FOR THEIR
12
         PREPARATION AND USE
13
15 <130> FILE REFERENCE: 6816/P63221US0
17 <140> CURRENT APPLICATION NUMBER: 09/147,443D
18 <141> CURRENT FILING DATE: 1999-01-21
20 <150> PRIOR APPLICATION NUMBER: PCT/EP97/03253
21 <151> PRIOR FILING DATE: 1997-06-20
23 <150> PRIOR APPLICATION NUMBER: EP 96810421.6
24 <151> PRIOR FILING DATE: 1996-06-24
26 <160> NUMBER OF SEQ ID NOS: 79
28 <170> SOFTWARE: PatentIn Ver. 2.1
30 <210> SEQ ID NO: 1
31 <211> LENGTH: 375
32 <212> TYPE: DNA
33 <213> ORGANISM: Homo sapiens
35 <220> FEATURE:
36 <221> NAME/KEY: CDS
37 <222> LOCATION: (1)..(375)
39 <400> SEQUENCE: 1
40 cag gtg aaa ctg ctc gag tct ggg gga ggc gtg gtc cag cct ggg agg
41 Gln Val Lys Leu Leu Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
                                         10
                      5
42
44 tee etg aga ete tee tgt ata geg tet gga tte ace etc agg aat tat
                                                                       96
45 Ser Leu Arg Leu Ser Cys Ile Ala Ser Gly Phe Thr Leu Arg Asn Tyr
                                     25
                 20
46
 48 gcc atg cac tgg gtc cgc cag gct cca ggc aag ggg ctg gag tgg gtg
 49 Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
                                 40
            35
 50
 52 gca ggt ata tgg ttt gat gga agt aac aaa aac tat gca gac tcc gtg
 53 Ala Gly Ile Trp Phe Asp Gly Ser Asn Lys Asn Tyr Ala Asp Ser Val
                             55
         50
 56 aag ggc cga ttc acc atc tcc aga gac aat tcc aag aac acg ctg tat
                                                                       240
 57 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
                         70
 60 ctg caa ctg aac agc ctg aga gac gag gac acg gct gtg tat tat tgt
                                                                       288
 61 Leu Gln Leu Asn Ser Leu Arg Asp Glu Asp Thr Ala Val Tyr Tyr Cys
                                         90
 64 gcg aga gag cga gca cgt ggt att tct agg ttc tat tac tac atg
                                                                       336
 65 Ala Arg Glu Arg Ala Ala Arg Gly Ile Ser Arg Phe Tyr Tyr Met
```

RAW SEQUENCE LISTING DATE: 04/17/2001 TIME: 13:37:07 Input Set : A:\09147443.app Output Set: N:\CRF3\04172001\I147443D.raw 105 375 100 68 gac gtc tgg ggc aaa ggg acc acg gtc acc gtc tcc cca' 69 Asp Val Trp Gly Lys Gly Thr Thr Val Thr Val Ser Pro 120 115 70 73 <210> SEQ ID NO: 2 74 <211> LENGTH: 125 75 <212> TYPE: PRT 76 <213> ORGANISM: Homo sapiens 79 Gln Val Lys Leu Leu Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg 78 <400> SEQUENCE: 2 10 82 Ser Leu Arg Leu Ser Cys Ile Ala Ser Gly Phe Thr Leu Arg Asn Tyr 25 85 Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val 88 Ala Gly Ile Trp Phe Asp Gly Ser Asn Lys Asn Tyr Ala Asp Ser Val 55 . 91 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr 94 Leu Gln Leu Asn Ser Leu Arg Asp Glu Asp Thr Ala Val Tyr Tyr Cys 70 97 Ala Arg Glu Arg Ala Ala Arg Gly Ile Ser Arg Phe Tyr Tyr Met 105 110 100 Asp Val Trp Gly Lys Gly Thr Thr Val Thr Val Ser Pro 100 120 101 115 105 <210> SEQ ID NO: 3 106 <211> LENGTH: 318 107 <212> TYPE: DNA 108 <213> ORGANISM: Homo sapiens 110 <220> FEATURE: 111 <221> NAME/KEY: CDS 112 <222> LOCATION: (1)..(318) 115 gtg atg acc cag tet eca tee tee etg tet gea tet gta gge gae aga 114 <400> SEQUENCE: 3 116 Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly Asp Arg 10 119 gtc acc atc act tgc cgg gca agt cag agc att agg agc cat ttg aat 5 96 120 Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Arg Ser His Leu Asn 123 tgg tat cag cag aaa cca ggg aaa gcc cct aag ttg ctg atc tat ggt 144 124 Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Gly 40 127 gcg tcc act ttg caa agt ggc gtc cca tca agg ttc agt ggc agt ggc 192 128 Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly Ser Gly 131 tot ggg gca gtt ttc act ctc acc atc gcc agt cta caa cct gaa gat 132 Ser Gly Ala Val Phe Thr Leu Thr Ile Ala Ser Leu Gln Pro Glu Asp 70 135 ttt gca act tac tac tgt caa gag agt tac agt aat cct cta atc acc 288

DATE: 04/17/2001 TIME: 13:37:07 RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/147,443D

Input Set : A:\09147443.app
Output Set: N:\CRF3\04172001\I147443D.raw

Output Sec. A. Cosses C	
136 Phe Ala Thr Tyr Tyr Cys Gln Glu Ser Tyr Ser Asn Pro Leu Ile Thr	
136 Phe Ala Thr Tyr Tyr Cys Gill Glu 501 90 95	
	18
137 139 ttc ggc caa ggg aca cga ctg gag act aaa' 139 ttc ggc caa ggg aca cga ctg gag act aaa'	
140 Phe Gly GIn Gly Thi Arg Let 312	
141 100	
144 <210> SEQ ID NO: 4	
145 <211> LENGTH: 106	
146 /212> TYPE: PRT	
147 <213> ORGANISM: Homo sapiens	
149 <400> SEQUENCE: 4	
150 Val Met Thr Gln Ser Pro Ser Ber Lea 15	
151 1 5 10 151 1 1 151 1 1 1 151 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
153 Val Thr Ile Thr Cys Arg Ala Ser Gin Ser Ile Arg Set 30	
25 154 20 25 156 Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Gly 40 45	
156 Trp Tvr Gln Gln Lys Pro Gly Lys Ala Pro Lys Lett 125 1	
157 35 40 First pho Ser Gly Ser Gly	
157 35 40 157 Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly Ser Gly 159 Ala Ser Thr Leu Gln Ser Gly Too Ser Arg Phe Ser Gly Ser Gly	
160 50 55 50 Tay Cln Pro Glu ASP	
160 50 55 162 Ser Gly Ala Val Phe Thr Leu Thr Ile Ala Ser Leu Gln Pro Glu Asp 75 80	
70 75 Pro Lou Tie Thr	
163 65 70 75  163 Phe Ala Thr Tyr Tyr Cys Gln Glu Ser Tyr Ser Asn Pro Leu Ile Thr  90 95	
166 168 Phe Gly Gln Gly Thr Arg Leu Glu Thr Lys 105	
169 173 <210> SEQ ID NO: 5	
173 <210 > SEQ 1D NO. 3	
174 <211> LENGTH: 375	
175 <212> TYPE: DNA 176 <213> ORGANISM: Homo sapiens	
176 <213> URGANISH. Homo Day	
178 <220> FEATURE:	
179 <221> NAME/KEY: CDS	
180 <222> LOCATION: (1)(375)	48
182 <400> SEQUENCE: 5 183 cag gtg aaa ctg ctc gag tct ggg gga ggc gtg gtc cag ccg ggg ggg 183 cag gtg aaa ctg ctc gag tct ggg gga ggc gtg gtc cag ccg ggg ggg 183 cag gtg aaa ctg ctc gag tct ggg gga ggc gtg gtc cag ccg ggg ggg	40
183 cag gtg aaa try Lou Clu Ser Gly Gly Val Val Gln Pro Gly Gly	
184 Gln Val Lys Led Led Gld Sol 10	96
185 1	96
187 tcc ctg aga ctc ccc cgc Clu Ala Ser Gly Phe Ala Leu Arg Ser Ser	
188 Ser Leu Arg Leu Ser Cys Gra Man 30	2.4.4
189 20	144
191 ggc atg cac tgg gtc cgc cag gct cct ggc aag ggg ceg yn 191 ggc atg cac tgg gtc cgc cag gct cct ggc aag ggg ceg yn 191 ggc atg cac tgg gtc cgc cag gct cct ggc aag ggg ceg yn 191 ggc atg cac tgg gtc cgc cag gct cct ggc aag ggg ceg yn 191 ggc atg cac tgg gtc cgc cag gct cct ggc aag ggg ceg yn 191 ggc atg cac tgg gtc cgc cag gct cct ggc aag ggg ceg yn 191 ggc atg cac tgg gtc cgc cag gct cct ggc aag ggg ceg yn 191 ggc atg cac tgg gtc cgc cag gct cct ggc aag ggg ceg yn 191 ggc atg cac tgg gtc cgc cag gct cct ggc aag ggg ceg yn 191 ggc atg cac tgg gtc cgc cag gct cct ggc aag ggg ceg yn 191 ggc atg cac tgg gtc cgc cag gct cct ggc aag ggg ceg yn 191 ggc atg cac tgg gtc cac tgg gct cct ggc aag ggg cag yn 191 ggc atg cac tgg gct cct ggc aag ggg ceg yn 191 ggc atg cac tgg gct cct ggc aag ggg cag yn 191 ggc atg cac tgg gct cct ggc atg gct cct gct gct gct gct gct gct gct g	
192 Gly Met His Trp val Alg Gim 1-1-1 45	
193 35 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	192
195 gca ctt ata tgg ttt gat gga agt atc aga tcg tat gca gat atc aga tcg tat gca gca gat atc aga tcg tat gca gca gat atc aga tcg tat gca	
196 Ala Leu IIe Trp Phe Asp 311	
197 50 and the age age acc eta tat	240
199 aag ggc cga ttc acc atc tcc aga gac acc tcc and Thr Ser Lvs Asn Thr Leu Tyr	
200 Lys Gly Arg Phe Thr Tie Ser His 357	
201 65 /0 and agg act gtg tat tac tgt	288
201 65 70 201 ctc caa atg cgc agt ctg agt gcc gac gac acg gct gtg tat tac tgt 203 ctc caa atg cgc agt ctg agt gcc gac gac acg gct gtg tat tac tgt	
203 ctc caa atg cgc agt ctg agt gcc gac gac acg gcc ggc agg Tyr Tyr Cys 204 Leu Gln Met Arg Ser Leu Ser Ala Asp Asp Thr Ala Val Tyr Tyr Cys	
<del></del>	

DATE: 04/17/2001 RAW SEQUENCE LISTING TIME: 13:37:07 PATENT APPLICATION: US/09/147,443D

Input Set : A:\09147443.app

Output Set: N:\CRF3\04172001\I147443D.raw

```
90
207 gcg aga gac aag gcg gtt cgg gga att agc agg tac aac tat tac atg
208 Ala Arg Asp Lys Ala Val Arg Gly Ile Ser Arg Tyr Asn Tyr Tyr Met
211 gac gtc tgg ggc aaa ggg acc acg gtc acc gtc tcc tca'
212 Asp Val Trp Gly Lys Gly Thr Thr Val Thr Val Ser Ser
        115
216 <210> SEQ ID NO: 6
217 <211> LENGTH: 125
218 <212> TYPE: PRT
219 <213> ORGANISM: Homo sapiens
222 Gln Val Lys Leu Leu Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
 225 Ser Leu Arg Leu Ser Cys Glu Ala Ser Gly Phe Ala Leu Arg Ser Ser
 228 Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 231 Ala Leu Ile Trp Phe Asp Gly Ser Ile Arg Ser Tyr Ala Glu Ser Val
 234 Lys Gly Arg Phe Thr Ile Ser Arg Asp Thr Ser Lys Asn Thr Leu Tyr
 237 Leu Gln Met Arg Ser Leu Ser Ala Asp Asp Thr Ala Val Tyr Tyr Cys
 240 Ala Arg Asp Lys Ala Val Arg Gly Ile Ser Arg Tyr Asn Tyr Tyr Met
 241 100
 243 Asp Val Trp Gly Lys Gly Thr Thr Val Thr Val Ser Ser
  244 115
  248 <210> SEQ ID NO: 7
  249 <211> LENGTH: 318
  250 <212> TYPE: DNA
  251 <213> ORGANISM: Homo sapiens
  253 <220> FEATURE:
  254 <221> NAME/KEY: CDS
  255 <222> LOCATION: (1)..(318)
  258 gtg atg acc cag tet cea tee tee etg tet gea tet gta gga gae aga
  259 Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly Asp Arg
  262 gtc acc atc act tgc cgg gca agt cag aac att atc cgc tat tta aat
                                                                       96
   263 Val Thr Ile Thr Cys Arg Ala Ser Gln Asn Ile Ile Arg Tyr Leu Asn
   266 tgg tat cag cag aag cca ggg aaa gcc cct agg ctc ctg atc tat ggt
                                                                        144
   267 Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Arg Leu Leu Ile Tyr Gly
                                  40
   270 gcg tcc act ttg caa agt ggg gtc cca tca agg ttc agt ggc agt gga
   271 Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly Ser Gly
   274 tet ggg aca gat tte act etc ace ate agt agt etg caa eet gaa gat
   272 50
```

DATE: 04/17/2001 RAW SEQUENCE LISTING PATENT APPLICATION: US/09/147,443D TIME: 13:37:07

Input Set : A:\09147443.app

Output Set: N:\CRF3\04172001\I147443D.raw

275 Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp 70 278 ttt gca act tac tac tgt caa cag agt tac cgt acc cct cca ttc act 288 279 Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Arg Thr Pro Pro Phe Thr 85 318 282 ttc ggc cct ggg acc aaa gtg gag atc aaa' 283 Phe Gly Pro Gly Thr Lys Val Glu Ile Lys 100 287 <210> SEQ ID NO: 8 288 <211> LENGTH: 106 289 <212> TYPE: PRT 290 <213> ORGANISM: Homo sapiens 292 <400> SEQUENCE: 8 293 Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly Asp Arg 10 296 Val Thr Ile Thr Cys Arg Ala Ser Gln Asn Ile Ile Arg Tyr Leu Asn 5 25 299 Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Arg Leu Leu Ile Tyr Gly 40 302 Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly Ser Gly 55 305 Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp 308 Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Arg Thr Pro Pro Phe Thr 70 85 311 Phe Gly Pro Gly Thr Lys Val Glu Ile Lys 100 312 316 <210> SEQ ID NO: 9 317 <211> LENGTH: 375 318 <212> TYPE: DNA 319 <213> ORGANISM: Homo sapiens 321 <220> FEATURE: 322 <221> NAME/KEY: CDS 323 <222> LOCATION: (1)..(375) 325 <400> SEQUENCE: 9 326 cag gtg aaa ctg ctc gag tct ggg gga ggc gtg gtc cag ccg ggg ggg 48 327 Gln Val Lys Leu Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly 10 5 330 tcc ctg aga ctc tcc tgt gaa gcg tct gga ttc acc ctc aga agt tct 331 Ser Leu Arg Leu Ser Cys Glu Ala Ser Gly Phe Thr Leu Arg Ser Ser 25 334 ggc atg cac tgg gtc cgc cag gct cct ggc aag ggg ctg gag tgg gtg 335 Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val 338 gca ctt ata tgg ttt gat gga agt atc aga tcg tat gca gaa tcc gtg 192 339 Ala Leu Ile Trp Phe Asp Gly Ser Ile Arg Ser Tyr Ala Glu Ser Val 55 342 aag ggc cga ttc acc atc tcc aga gac act tcc aag aac acc cta tat 240 343 Lys Gly Arg Phe Thr Ile Ser Arg Asp Thr Ser Lys Asn Thr Leu Tyr

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/147,443D

DATE: 04/17/2001
TIME: 13:37:08

DATE: 04/17/2001

Input Set: A:\09147443.app
Output Set: N:\CRF3\04172001\I147443D.raw